


[Subscribe](#) (Full Service) [Register](#) (Limited Service, Free) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)

 Terms used **textiles thermal simulat**

Found 3 of 150,885

Sort results by

Display results


[Save results to a Binder](#)

[Search Tips](#)


Open results in a new window

[Try an Advanced Search](#)
[Try this search in The ACM Guide](#)

Results 1 - 3 of 3

 Relevance scale ☐ ☐ ☐ ☐ ☐

### 1 [Cloth & deformable bodies: Feel the "fabric": an audio-haptic interface](#)

G. Huang, D. Metaxas, M. Govindaraj

 July 2003 **Proceedings of the 2003 ACM SIGGRAPH/Eurographics Symposium on Computer animation**

Full text available: pdf(6.08 MB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

An objective fabric modeling system should convey not only the visual but also the haptic and audio sensory feedbacks to remote/internet users via an audio-haptic interface. In this paper we develop a fabric surface property modeling system consisting of a stylus based fabric characteristic sound modeling, and an audio-haptic interface. By using a stylus, people can perceive fabrics surface roughness, friction, and softness though not as precisely as with their bare fingers. The audio-haptic int ...

### 2 [Predicting the drape of woven cloth using interacting particles](#)

David E. Breen, Donald H. House, Michael J. Wozny

 July 1994 **Proceedings of the 21st annual conference on Computer graphics and interactive techniques**

Full text available: pdf(483.23 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

ps(5.47 MB)

We demonstrate a physically-based technique for predicting the drape of a wide variety of woven fabrics. The approach exploits a theoretical model that explicitly represents the microstructure of woven cloth with interacting particles, rather than utilizing a continuum approximation. By testing a cloth sample in a Kawabata fabric testing device, we obtain data that is used to tune the model's energy functions, so that it reproduces the draping behavior of the original material. Photographs, ...

**Keywords:** Kawabata Evaluation System, cloth, drape, particle systems, physically-based modeling

### 3 [Predicting reflectance functions from complex surfaces](#)

Stephen H. Westin, James R. Arvo, Kenneth E. Torrance

 July 1992 **ACM SIGGRAPH Computer Graphics , Proceedings of the 19th annual conference on Computer graphics and interactive techniques**, Volume 26 Issue 2

Full text available: pdf(8.26 MB)

 Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** BRDF, Monte Carlo, anisotropic reflection, spherical harmonics

Results 1 - 3 of 3

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2005 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)



US Patent &amp; Trademark Office

[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)
Terms used **garment thermal simulat**

Found 1 of 150,885

Sort results by


[Save results to a Binder](#)
[Try an Advanced Search](#)

Display results


[Search Tips](#)
[Try this search in The ACM Guide](#)
☐ Open results in a new window

Results 1 - 1 of 1

Relevance scale ☐ ☐ ☐ ☐ ☐

# 1 [Applications in logistics, transportation, and distribution: Warehousing and inventory management: integrating simulation modeling and equipment condition diagnostics for predictive maintenance strategies -a case study](#)

Luis Rene Contreras, Chirag Modi, Arunkumar Pennathur

 December 2002 **Proceedings of the 34th conference on Winter simulation: exploring new frontiers**

 Full text available: [pdf\(234.63 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

This paper presents results from a case study in predictive maintenance at a distribution warehouse. A simulation model was built with ARENA<sup>TM</sup> 5.0 for integrating predictive maintenance strategies with production planning strategies, for a conveyor system. Equipment health was monitored using condition-based parameters such as temperature and vibration for mechanical and electrical components such as rollers, electrical motors, and gearboxes. This diagnostic information was ...

Results 1 - 1 of 1

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2005 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

 Useful downloads: [Adobe Acrobat](#) [QuickTime](#) [Windows Media Player](#) [Real Player](#)



US Patent &amp; Trademark Office

[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☐ The ACM Digital Library ☒ The Guide



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)
Terms used **garment thermal simulat**

Found 1 of 150,885

Sort results by


[Save results to a Binder](#)
[Try an Advanced Search](#)

Display results


[Search Tips](#)
[Try this search in The ACM Guide](#)
☐ Open results in a new window

Results 1 - 1 of 1

Relevance scale ☐ ☐ ☐ ☐ ☐

# 1 [Applications in logistics, transportation, and distribution: Warehousing and inventory management: integrating simulation modeling and equipment condition diagnostics for predictive maintenance strategies -a case study](#)

Luis Rene Contreras, Chirag Modi, Arunkumar Pennathur

 December 2002 **Proceedings of the 34th conference on Winter simulation: exploring new frontiers**

Full text available: pdf(234.63 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#)

This paper presents results from a case study in predictive maintenance at a distribution warehouse. A simulation model was built with ARENA<sup>TM</sup> 5.0 for integrating predictive maintenance strategies with production planning strategies, for a conveyor system. Equipment health was monitored using condition-based parameters such as temperature and vibration for mechanical and electrical components such as rollers, electrical motors, and gearboxes. This diagnostic information was ...

Results 1 - 1 of 1

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2005 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)
Useful downloads: [Adobe Acrobat](#)
[QuickTime](#)

[Windows Media Player](#)

[Real Player](#)


[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)

 Terms used **textile thermal simulat**

Found 5 of 150,885

Sort results by


[Save results to a Binder](#)
[Try an Advanced Search](#)

Display results


[Search Tips](#)
[Try this search in The ACM Guide](#)
☐ Open results in a new window

Results 1 - 5 of 5

 Relevance scale ☐ ☐ ☐ ☐ ☐

### 1 [Predicting the drape of woven cloth using interacting particles](#)



David E. Breen, Donald H. House, Michael J. Wozny

 July 1994 **Proceedings of the 21st annual conference on Computer graphics and interactive techniques**

Full text available: pdf(483.23 KB)

ps(5.47 MB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We demonstrate a physically-based technique for predicting the drape of a wide variety of woven fabrics. The approach exploits a theoretical model that explicitly represents the microstructure of woven cloth with interacting particles, rather than utilizing a continuum approximation. By testing a cloth sample in a Kawabata fabric testing device, we obtain data that is used to tune the model's energy functions, so that it reproduces the draping behavior of the original material. Photographs, ...

**Keywords:** Kawabata Evaluation System, cloth, drape, particle systems, physically-based modeling

### 2 [Applications of visualization: Ideal, real and virtual textile structure modelling and visualization](#)



Miloslav Kosek, Tomas Mikolanda, Bohumila Koskova

 November 2004 **Proceedings of the 3rd international conference on Computer graphics, virtual reality, visualisation and interaction in Africa**

Full text available: pdf(179.36 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Usually the software for textile visualization uses ideal model based on simplified structure assumptions that may not be in a good agreement with reality. Real model reconstructs a small volume of structure from 2D parallel cuts. Proposed virtual model joins both the models. In general, any structure parameter consists of two parts: fixed and variable. Specific statistical methods make possible to determine or generate both the components, if there are many photographs of random cuts. The co ...

**Keywords:** FFT, OpenGL, VRML, image processing, virtual reality

### 3 [Cloth & deformable bodies: Feel the "fabric": an audio-haptic interface](#)



G. Huang, D. Metaxas, M. Govindaraj

 July 2003 **Proceedings of the 2003 ACM SIGGRAPH/Eurographics Symposium on**

**Computer animation**


Full text available:  pdf(6.08 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

An objective fabric modeling system should convey not only the visual but also the haptic and audio sensory feedbacks to remote/internet users via an audio-haptic interface. In this paper we develop a fabric surface property modeling system consisting of a stylus based fabric characteristic sound modeling, and an audio-haptic interface. By using a stylus, people can perceive fabrics surface roughness, friction, and softness though not as precisely as with their bare fingers. The audio-haptic int ...

**4 Predicting reflectance functions from complex surfaces**

Stephen H. Westin, James R. Arvo, Kenneth E. Torrance

July 1992 **ACM SIGGRAPH Computer Graphics , Proceedings of the 19th annual conference on Computer graphics and interactive techniques**, Volume 26 Issue 2

Full text available:  pdf(8.26 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** BRDF, Monte Carlo, anisotropic reflection, spherical harmonics

**5 Tangible ideas for children: materials sciences as the future of educational technology**

Michael Eisenberg

June 2004 **Proceeding of the 2004 conference on Interaction design and children: building a community**

Full text available:  pdf(490.58 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Traditionally, the notion of "educational technology" has been equated with "educational computing". While computer technology is, and will continue to be, a central focus of educational technology, its importance is likely to be rivaled in the coming generation by developments in materials science. This paper represents an early attempt to discuss the role of novel materials in educational settings, and in children's lives more generally. We discuss a variety of fascinating new materials, all o ...

**Keywords:** educational technology, materials science

Results 1 - 5 of 5

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2005 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)